

LISTING OF CLAIMS

1. (currently amended) A ~~reactor wall coating in a~~ fluidized bed reactor having a reactor wall coating, wherein said reactor wall coating is formed in situ on a reactor wall during polymerization of olefin monomer, the said reactor wall coating having a thickness of at least 100 μm and a molecular weight distribution comprising a major peak having:
 - (a) an Mw/Mn ratio of less than 10;
 - (b) an Mz/Mw ratio of less than 7, and
 - (c) a maximum value of $d(\text{wt}\%)/d(\log \text{MW})$ at less than 25,000 daltons in a plot of $d(\text{wt}\%)/d(\log \text{MW})$, where MW is the molecular weight in daltons.
2. (original) The reactor wall coating of claim 1, wherein the thickness is at least 125 μm .
3. (original) The reactor wall coating of claim 1, wherein the thickness is at least 150 μm .
4. (original) The reactor wall coating of claim 1, wherein the Mw/Mn ratio is less than 4.
5. (original) The reactor wall coating of claim 1, wherein the Mz/Mw ratio is less than 4.
6. (original) The reactor wall coating of claim 1, wherein the maximum value of $d(\text{wt}\%)/d(\log \text{MW})$ is at less than 15,000 daltons.
7. (original) The reactor wall coating of claim 1, wherein the maximum value of $d(\text{wt}\%)/d(\log \text{MW})$ is at less than 13,000 daltons.

8. (original) The reactor wall coating of claim 1, wherein the major peak has an Mn value of less than 7000.
9. (original) The reactor wall coating of claim 1, wherein the coating has an initial voltage potential V_0 of at least 400 V, where V_0 is the absolute value of the voltage potential measured immediately after application of a charging voltage potential of 9 kV for a period of 20 ms.
10. (original) The reactor wall coating of claim 9, wherein V_0 is at least 600 V.
11. (original) The reactor wall coating of claim 9, wherein V_0 is at least 800 V.
12. (original) The reactor wall coating of claim 9, wherein V_0 is at least 1000 V.
13. (original) The reactor wall coating of claim 9, wherein the coating has a voltage retention value V_{60} of at least $0.8V_0$, where V_{60} is the absolute value of the voltage potential measured 60 s after application of the charging voltage potential.
14. (original) The reactor wall coating of claim 13, wherein V_{60} is at least $0.9V_0$.
15. (original) The reactor wall coating of claim 9, wherein the coating has a voltage retention value V_{120} of at least $0.75V_0$, where V_{120} is the absolute value of the voltage potential measured 120 s after application of the charging voltage potential.
16. (original) The reactor wall coating of claim 15, wherein V_{120} is at least $0.8V_0$.
17. (original) The reactor wall coating of claim 15, wherein V_{120} is at least $0.9V_0$.

18. (original) The reactor wall coating of claim 9, wherein the coating has a voltage retention value V_{300} of at least $0.75V_0$, where V_{300} is the absolute value of the voltage potential measured 300 s after application of the charging voltage potential.
19. (original) The reactor wall coating of claim 18, wherein V_{300} is at least $0.8V_0$.
20. (original) The reactor wall coating of claim 1, wherein the major peak contains at least 50 wt% of the total weight of the molecular weight distribution.
21. (original) The reactor wall coating of claim 1, wherein the major peak contains at least 60 wt% of the total weight of the molecular weight distribution.
22. (original) The reactor wall coating of claim 1, wherein the major peak contains at least 70 wt% of the total weight of the molecular weight distribution.
- 23 - 42. (cancelled)
43. (previously presented) The reactor wall coating of claim 1, wherein said wall coating is formed in situ on a reactor wall during polymerization of olefin monomer in the presence of bimetallic catalyst and an aluminum alkyl cocatalyst to form a reactor wall coating on the interior reactor wall.
44. (currently amended) The reactor wall coating of ~~Claim 42~~ Claim 1, wherein said olefin monomer comprises at least one monomer selected from the group consisting of ethylene, propylene, C_4 - C_{20} alpha olefins, and mixtures thereof.
45. (previously presented) The reactor wall coating of Claim 1, wherein said coating comprises aluminum and zirconium.

SUPPORT FOR THE AMENDMENTS

Claim 1 has been rewritten to point out that the present invention is directed to a fluidized bed reactor having a reactor wall coating, support for which is fairly suggested by the original Claim 1. Claim 1 has also been amended by adding the limitations of Claim 42.

Claims 23-41 were previously cancelled.

The limitations of Claim 42 are now incorporated into Claim 1 by this amendment and thus Claim 42 is cancelled. The cancellation of Claim 42 necessitates amendment to Claim 43.

It is respectfully submitted that there is no possibility of new matter and entry and consideration of the foregoing claims is respectfully requested.